



US009224141B1

(12) **United States Patent**
Lamba et al.

(10) **Patent No.:** **US 9,224,141 B1**
(45) **Date of Patent:** **Dec. 29, 2015**

(54) **ENCODING A MAGNETIC STRIPE OF A CARD WITH DATA OF MULTIPLE CARDS**

(71) Applicant: **Square, Inc.**, San Francisco, CA (US)

(72) Inventors: **Kartik Lamba**, Berkeley, CA (US);
Rodion T. S. V. Steshenko, Oakland, CA (US)

(73) Assignee: **Square, Inc.**, San Francisco, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/197,704**

(22) Filed: **Mar. 5, 2014**

(51) **Int. Cl.**
G06Q 20/34 (2012.01)
G06K 19/06 (2006.01)
G06Q 20/20 (2012.01)
G06Q 30/02 (2012.01)

(52) **U.S. Cl.**
CPC **G06Q 20/341** (2013.01); **G06K 19/06206** (2013.01); **G06Q 20/204** (2013.01); **G06Q 30/0226** (2013.01)

(58) **Field of Classification Search**
CPC G06K 20/341; G06K 1/125; G06K 19/08; G06K 19/06206; G06K 19/12; G06Q 30/0205; G06Q 30/0226; G06Q 30/0238; G06Q 20/105; G06Q 20/204; G06Q 20/341
USPC 235/487, 492, 493, 379, 380
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,590,038 A 12/1996 Pitroda
5,960,411 A 9/1999 Hartman et al.
6,175,922 B1 1/2001 Wang

6,193,155 B1 2/2001 Walker et al.
6,263,352 B1 7/2001 Cohen
6,341,353 B1 1/2002 Herman et al.
7,085,812 B1 8/2006 Sherwood
7,155,411 B1 12/2006 Blinn et al.
7,478,054 B1 1/2009 Adams et al.
7,493,390 B2 2/2009 Bobde et al.
7,552,087 B2 6/2009 Schultz et al.
7,575,166 B2 8/2009 McNamara

(Continued)

FOREIGN PATENT DOCUMENTS

KR 10-2006-0103089 A 9/2006

OTHER PUBLICATIONS

“Another EBay Band-Aid Fails to Fix the New Pricing Structure Flaws,” dated Oct. 18, 2008, Retrieved from the Internet URL: <https://thebrewsnews.wordpress.com/2008/10/18/another-ebay-band-aid-fails-to-fix-the-new-pricing-structure-flaws/>, pp. 1-5.

(Continued)

Primary Examiner — Paultep Savusdiphol

(74) *Attorney, Agent, or Firm* — Perkins Coie LLP

(57) **ABSTRACT**

A method and apparatus for encoding a magnetic stripe area of a magnetic stripe card with account data from multiple cards are disclosed. The magnetic stripe card (“the card”) can be associated with account data from multiple cards, such as account data from a driver’s license and from various payment cards, such as a credit card, a debit card, and a pre-paid gift card. Location information indicating the location of the card can be obtained, and account data for the multiple cards associated with the card can be selected based on a criterion, such as based on the location information. The card includes a magnetic stripe emulator, and the emulator is encoded with account data of the multiple cards, such that with a single swipe of the card through a card reader, the card reader can read the account data of the multiple cards from the magnetic stripe area.

26 Claims, 21 Drawing Sheets

